multiple access communication system comprising the steps of:

coding control information using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period and wherein said control information carries information for a specified group of mobile stations only at predetermined times;

coding each user traffic signal using a spread spectrum code unique to each traffic signal;

adding said calling channel signal and said coded traffic signal to obtain a composite signal;

modulating said composite signal on a radio frequency carrier to form a radio frequency signal;

transmitting said radio frequency signal to said plurality of said mobile stations;

receiving said radio frequency signal at at least one of said mobile stations;

decoding said received signal in a said mobile station to extract said control information and to determine a phase of the calling channel signal; and

decoding said radio frequency signal in said mobile station using said phase of the calling channel to extract traffic information intended for said mobile station.

33. (Twice Amended) A code division multiple access communication system for transmitting control information and user traffic signals from a first base station to a plurality of mobile stations comprising:

means for coding control information using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period and wherein said control information means carries information for a specified group of mobile stations only at predetermined times;

means for coding each user traffic signal using a spread spectrum code unique to each traffic signal;

means for adding said calling channel signal and said coded traffic signal to obtain a

composite signal;

means for modulating said composite signal on a radio frequency carrier to form a radio frequency signal;

means for transmitting said radio frequency signal to said plurality of said mobile stations;

means for receiving said radio frequency signal at at least one of said mobile stations;

means for decoding said received signal in said mobile station to extract said control information and to determine a phase of the calling channel signal; and

means for decoding said radio frequency signal in said mobile station using said phase of the calling channel to extract traffic information intended for said mobile station.

43. (Amended) A code division multiple access communication system for transmitting control information and user traffic signals from a first base station to a plurality of mobile stations comprising:

a calling channel modulation generator coding control information using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period and wherein the control information carries information for a specified group of mobile stations only at predetermined times;

a traffic channel modulation generator coding each user traffic signal using a spread spectrum code unique to each traffic signal;

a summing network adding the calling channel signal and the coded traffic signals to provide a composite signal;

a mixer modulating the composite signal on a radio frequency carrier to form a radio frequency signal;

a transmit power amplifier transmitting the radio frequency signal via an antenna to the plurality of mobile stations;

a radio receiver receiving the radio frequency signal at at least one of the mobile stations; and

a correlator decoding the received signal in the at least one mobile station to extract at

least one of control information and traffic information intended for the at least one mobile station, wherein the control information is used to determine a phase of the calling channel signal and the phase of the calling channel signal is used to extract the traffic information.

Please add the following new claims.

45. (New) A method for transmitting control information and user traffic signals from a first base station to a plurality of mobile stations in a code division multiple access communication system comprising the steps of:

coding control information using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period and wherein said control information carries information for a specified group of mobile stations only at predetermined times;

coding each user traffic signal using a spread spectrum code unique to each traffic signal;

adding said calling channel signal and said coded traffic signal to obtain a composite signal;

modulating said composite signal on a radio frequency carrier to form a radio frequency signal; and

transmitting said radio frequency signal to said plurality of mobile stations.

46. (New) A method for receiving control information and user traffic signals from a first base station at a mobile station in a code division multiple access communication system comprising the steps of:

receiving a radio frequency signal at said mobile station, the radio frequency signal including control information coded using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period, wherein said control information carries information for a specified group of mobile stations only at predetermined times and wherein the radio frequency signal further includes a

user traffic signal coded using a spread spectrum code unique to each traffic signal, said calling channel signal and said coded traffic signal being combined to provide a composite signal;

decoding said received signal in a said mobile station to extract said control information and to determine a phase of the calling channel signal; and

decoding said received signal in said mobile station using said phase of the calling channel to extract traffic information intended for said mobile station.

47. (New) A code division multiple access communication system for transmitting control information and user traffic signals from a first base station to a plurality of mobile stations comprising:

means for coding control information using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period and wherein said control information means carries information for a specified group of mobile stations only at predetermined times;

means for coding each user traffic signal using a spread spectrum code unique to each traffic signal;

means for adding said calling channel signal and said coded traffic signal to obtain a composite signal;

means for modulating said composite signal on a radio frequency carrier to form a radio frequency signal; and

means for transmitting said radio frequency signal to said plurality of mobile stations.

48. (New) A system for receiving control information and user traffic signals from a first base station at a mobile station in a code division multiple access communication system comprising:

means for receiving a radio frequency signal at said mobile station, the radio frequency signal including control information coded using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a

succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period, wherein said control information carries information for a specified group of mobile stations only at predetermined times and wherein the radio frequency signal further includes a user traffic signal coded using a spread spectrum code unique to each traffic signal, said calling channel signal and said coded traffic signal being combined to provide a composite signal;

means for decoding said received signal in a said mobile station to extract said control information and to determine a phase of the calling channel signal; and

means for decoding said received signal in said mobile station using said phase of the calling channel to extract traffic information intended for said mobile station.

49. (New) A code division multiple access communication system for transmitting control information and user traffic signals from a first base station to a plurality of mobile stations comprising:

a calling channel modulation generator that is configured to code control information using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period and wherein the control information carries information for a specified group of mobile stations only at predetermined times;

a traffic channel modulation generator that is configured to code each user traffic signal using a spread spectrum code unique to each traffic signal;

a summing network that is configured to add the calling channel signal and the coded traffic signals to provide a composite signal;

a mixer that is configured to modulate the composite signal on a radio frequency carrier to form a radio frequency signal; and

a transmit power amplifier that is configured to transmit the radio frequency signal via an antenna to the plurality of mobile stations.

50. (New) A code division multiple access mobile station that receives control information and user traffic signals from a first base station comprising:

a radio receiver receiving a radio frequency signal at the mobile station, the radio frequency signal including control information coded using a spread spectrum code unique to control information to form a calling channel signal, wherein a duration of each of a succession of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period, wherein the control information carries information for a specified group of mobile stations only at predetermined times and wherein the radio frequency signal further includes a user traffic signal coded using a spread spectrum code unique to each traffic signal, said calling channel signal and said coded traffic signal being combined to provide a composite signal; and

a correlator that is configured to decode the received signal to extract at least one of control information and traffic information intended for the mobile station, wherein the control information is used to determine a phase of the calling channel signal and the phase of the calling channel signal is used to extract the traffic information.

51. (New) A method for receiving a paging message at a code division multiple access mobile station, comprising:

determining a subgroup of data blocks associated with the mobile station, the subgroup of data blocks to be received on a calling channel;

receiving a paging message at said mobile station in said determined subgroup of data blocks and not in other subgroups of data blocks; and

decoding said subgroup of data blocks using a spread spectrum code assigned to said calling channel.

52. (New) A code division multiple access mobile station comprising:

means for determining a subgroup of data blocks associated with the mobile station, the subgroup of data blocks to be received on a calling channel;

means for receiving a paging message at said mobile station in said determined subgroup of data blocks and not in other subgroups of data blocks; and

means for decoding said subgroup of data blocks using a spread spectrum code assigned to said calling channel.

53. (New) A code division multiple access mobile station, comprising:

a control processor that is configured to determine at said mobile station a subgroup of data blocks associated with the mobile station, the subgroup of data blocks to be received on a calling channel signal;

a calling channel demodulator that that is configured to decode calling information using a spread spectrum code assigned for use with calling information to demodulate the calling channel signal,

wherein a duration of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period, and

wherein paging messages intended for the mobile station are included only in the determined subgroup of the calling channel signal associated with the mobile station.

54. (New) The method of Claim 30 further comprising:

determining at said mobile station a subgroup of data blocks associated with the mobile station, the subgroup of data blocks to be received on a calling channel;

receiving a paging message at said mobile station in said determined subgroup of data blocks and not in other subgroups of data blocks; and

decoding said subgroup of data blocks at said mobile station using a spread spectrum code assigned to said calling channel.

55. (New) The system of Claim 34 further comprising:

means for determining at said mobile station a subgroup of data blocks associated with the mobile station, the subgroup of data blocks to be received on a calling channel;

means for receiving a paging message at said mobile station in said determined subgroup of data blocks and not in other subgroups of data blocks; and

means for decoding said subgroup of data blocks at said mobile station using a spread spectrum code assigned to said calling channel.

56. (New) The system of Claim 44 further comprising:

a control processor in at least one of the subgroup of mobile station that is configured to determine at said at least one of the subgroup of mobile stations the subgroup of data blocks associated with the at least one of the mobile stations, the subgroup of data blocks to be received on a calling channel signal;

a calling channel demodulator in the at least one of the subgroup of mobile stations that is configured to decode calling information using a spread spectrum code assigned for use with calling information to demodulate the calling channel signal,

wherein a duration of data blocks in the calling channel signal is equal to a duration of a speech coder's analysis period, and

wherein paging messages intended for the at least one of the subgroup of mobile stations are included only in the determined subgroup of the calling channel signal associated with the at least one of the subgroup of mobile station.